

Title (en)

Compact resonance drive for earth-working equipment.

Title (de)

Kompakter Resonanzantrieb für Vorrichtungen zur Bodenbewegung.

Title (fr)

Entraînement résonnant compact pour équipement de terrassement.

Publication

EP 0039373 A2 19811111 (EN)

Application

EP 80107644 A 19801204

Priority

US 14592180 A 19800502

Abstract (en)

A mechanism for resonantly driving a moveable cutter blade located at the base of a concave tool is disclosed. An angulate beam has first and second legs meeting at a juncture at an included angle of less than 180 DEG . The beam includes a mounting flange which extends inwardly from the juncture between the legs. The beam has a resonant frequency, when restrained at the mounting flange, with a node at the juncture and first and second anti-nodes at the ends. One end of the beam receives a vibratory input or near the resonant frequency so that the second end vibrates about a neutral position. The mounting flange is attached to the tool so that the angulate beam conforms to the concave shape of the tool. The neutral position of the second end of the beam is spaced from the back of the cutter blade within striking distance of the blade. The input vibration at the first end of the beam causes the second end to vibrate about its neutral position and impart forward impulses to the cutter blade to drive the blade intermittently forward.

IPC 1-7

E02F 3/66; **B06B 3/00**

IPC 8 full level

B06B 3/00 (2006.01); **E02F 3/28** (2006.01); **E02F 3/40** (2006.01)

CPC (source: EP)

B06B 3/00 (2013.01); **E02F 3/401** (2013.01); **E02F 3/405** (2013.01)

Cited by

US5269382A; EP0326679A1; FR2602256A1; GB2220962A; GB2220962B

Designated contracting state (EPC)

AT BE CH DE FR GB IT LU NL SE

DOCDB simple family (publication)

EP 0039373 A2 19811111; **EP 0039373 A3 19821201**; **EP 0039373 B1 19860827**; AT E21715 T1 19860915; BR 8100552 A 19820112; CA 1144210 A 19830405; DE 3071729 D1 19861002; JP H0135131 B2 19890724; JP S57238 A 19820105

DOCDB simple family (application)

EP 80107644 A 19801204; AT 80107644 T 19801204; BR 8100552 A 19810130; CA 365842 A 19801201; DE 3071729 T 19801204; JP 6615481 A 19810430